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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,426	08/27/2003	Tadahiro Ishizaka	010986.52734US	3993
23911 7590 11/23/2007 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			EXAMINER MOORE, KARLA A	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 11/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/648,426

Applicant(s)

ISHIZAKA ET AL.

Examiner

Karla Moore

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### *Election/Restrictions*

1. As previously noted, Claim 7 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 7 represents a distinct species of the disclosed invention as disclosed in Figure 4 and beginning at page 13, line 26 of the specification. The species comprises a differing mutually exclusive characteristic (with respect to Figures 1-3 and the previously examined claims where a cooling mechanism is formed in the support member/bottom plate) of a cooling mechanism formed in a vertical side wall of the processing apparatus.
2. While it may be true that amended claim 7 is within the scope of original claim 7 (original claim 7 appears to have been generic to a plurality of species), it is also true that a plurality of species were not claimed originally, either. However, presently this is not the case. An additional species is now recited in claim 7. A species that if presented earlier would have also required an election of species. Therefore, claim 7 remains withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. Examiner also notes that in any subsequent filings the correct status identifier for claim 7 is "(withdrawn)".

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 6, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 recites the limitation "as *the* entire bottom surface of the process chamber", emphasis added. There is insufficient antecedent basis for this limitation in the claim. Correction and/or clarification is requested. The claim has been interpreted as described below.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order

for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-3, -6, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0075624 A1 to Wang et al. in view of U.S. Patent No. 4,209,357 to Gorin et al.

9. Wang et al. disclose a processing apparatus substantially as claimed and comprising a processing apparatus in Figures 1-2 and 4-8, comprising: a process chamber made of a metal (Figure 1, 75; also see paragraph 4) for applying a process to an object to be processed placed in the process chamber by supplying a process gas to the object to be processes; a placement stage made of ceramics or a metal matrix composite (multiple structures: 115 and 175; paragraphs 36-39) located inside the process chamber so that the object to be processed is placed thereon; a heating device (235) incorporated in the placement stage; a support member made of metal ceramics composite (190; paragraphs 63-70) for supporting said placement stage; and a seal member (240; paragraph 52) located between a sidewall of said process chamber and the support member; wherein said support member is connected to said sidewall of said process chamber and configured and arranged to serve as a bottom plate of said process chamber, said placement stage is directly joined to a first part of said bottom plate (top surface). The apparatus further comprises a cooling mechanism located in the vicinity of said seal member (300; paragraphs 68 and 69) so as to cool said seal member.

10. However, Wang et al. fail to teach said support member is connected to said sidewall of said process chamber and configured and arranged to serve as a bottom plate of said process chamber, wherein the bottom plate constitutes an entire bottom surface of the process chamber.

11. Gorin et al. teach providing a support member configured and arranged to serve as a movable bottom plate that sealing engages a sidewall of a process chamber, wherein the bottom plate constitutes an entire bottom surface of the process chamber for the purpose of bounding a small confined reactor volume and allowing for the transfer of a workpiece to and from the process chamber (column 3, rows 20-32; column 4, rows 31-35; and column 6, rows 15-29).

12. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a support member configured and arranged to serve as a movable bottom plate that sealing engages a sidewall of a process chamber, wherein the bottom plate constitutes an entire bottom surface of the process chamber in Wang et al. in order to bound a small confined reactor volume and allow for the transfer of a workpiece to and from the process chamber as taught by Gorin et al.

13. With respect to claim 2 said support member is joined to a surface of said placement stage opposite to a surface on which the object to be processed is placed (see aforementioned figures).

14. With respect to claim 3, said support member has a substantially flat shape, and an entire surface of said placement stage opposite to a surface on which the object to be processed is placed is joined to a flat surface of said support member (see aforementioned figures).

15. With respect to claim 6, said cooling mechanism includes a coolant passage formed in said support member (300; paragraphs 68 and 69).

16. With respect to claim 8, said support member is joined to said placement stage by blazing (paragraphs 54-58).

17. With respect to claim 11, said support member has an opening to lead electrodes or power supply lines (associated with voltage supply, temperature controller, heater power supply, etc.), which extend from said placement stage, out of said process chamber.

### ***Response to Arguments***

18. Applicant's arguments with respect to claims 1-3, 6, 8 and 11 have been considered but are moot in view of the new ground(s) of rejection. Gorin et al. disclose a support member of a processing apparatus arranged and configured to serve as a bottom plate of a process chamber, wherein the bottom plate constitutes an entire bottom surface of the process chamber.

***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Drake, Jr. also discloses a support member of a processing apparatus arranged and configured to serve as a bottom plate of a process chamber, wherein the bottom plate constitutes an entire bottom surface of the process chamber.

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

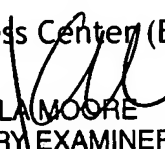


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
KARLA MOORE  
PRIMARY EXAMINER  
Art Unit 1792  
16 November 2007